

CLAIMS

1. A liquid toner comprising:

a carrier liquid; and

toner particles dispersed in the carrier liquid, said toner particles comprising:

a polymer blend comprising:

a first polymer comprising a minor portion of said blend and having a relatively higher chemical bonding reactivity with paper, comprising a polymer chosen from the group consisting of maleic anhydride terpolymer, maleic anhydride grafted linear low density polyethylene; maleic anhydride grafted polypropylene copolymer and maleic anhydride grafted linear ethylene acetate polymer; and

a second polymer comprising a major portion of said blend and having a relatively lower or null chemical bonding reactivity with paper,

said first polymer being in a proportion of between 2% and less than 10% of the

blend.

2. A liquid toner according to claim 1 wherein the polymer blend has, on a semi-logarithmic viscosity vs. temperature cooling curve, a transition at a temperature below about 65°C, wherein at temperatures below the transition temperature, the rate of change of viscosity with temperature is higher than the rate of change at temperatures above the transition temperature.

3. A liquid toner according to claim 2 wherein at the transition temperature, the viscosity is below about  $10^7$  centipoise.

4. A liquid toner according to claim 3 wherein at the transition temperature, the viscosity is below about  $2 \times 10^5$  centipoise.

5. A liquid toner according to claim 2 wherein at the transition temperature, the viscosity is above about  $10^4$  centipoise.

6. A liquid toner according to claim 3 wherein at the transition temperature, the viscosity is above about  $10^4$  centipoise.

7. A liquid toner according to claim 4 wherein at the transition temperature, the viscosity is above about  $10^4$  centipoise.

5 8. A liquid toner according to claim 1 wherein the second polymer comprises at least two polymers.

9. A liquid toner according to claim 1 wherein the polymer blend is substantially insoluble in the carrier liquid and wherein at least one of the polymers solvates the carrier liquid at an  
10 elevated temperature.

10. A liquid toner according to claim 1 wherein the proportion is about 5%.

11. A liquid toner according to claim 1 wherein the first polymer comprises maleic  
15 anhydride terpolymer.

12. A liquid toner according to claim 1 wherein the first polymer comprises maleic anhydride grafted linear low density polyethylene.

13. A liquid toner according to claim 1 wherein the first polymer comprises maleic  
20 anhydride grafted polypropylene copolymer.

14. A liquid toner according to claim 1 wherein the first polymer comprises maleic anhydride grafted linear ethylene acetate polymer.  
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15. A liquid toner according to claim 1 wherein the second polymer comprises ethylene methacrylic acid copolymer.

16. A liquid toner according to claim 1 wherein the second polymer comprises an ionomer  
30 of ethylene methacrylic acid copolymer.

17. A liquid toner according to claim 1 wherein the second polymer comprises an ester of ethylene methacrylic acid copolymer.

18. A liquid toner according to claim 1 wherein the second polymer comprises low molecular weight ethylene acrylic acid copolymer.

5 19. A liquid toner according to claim 1 wherein the second polymer comprises an ionomer of low molecular weight ethylene acrylic acid copolymer.

20. A liquid toner according to claim 1 wherein the second polymer comprises an ester of ethylene acrylic acid copolymer.

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21. A liquid toner according to claim 1 wherein the second polymer comprises an acid modified ethylene vinyl acetate terpolymer.

15 22. A liquid toner according to claim 1 wherein the toner particles comprise at least one pigment.

23. A method of printing comprising:  
providing an electrostatic image; and  
developing the electrostatic image with a toner in accordance with claim 1.

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24. A method according to claim 23 and including transferring the developed image from a surface on which it is developed to a final substrate.

25. A method according to claim 24 wherein the final substrate contains cellulose.

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26. A method according to claim 24 wherein the final substrate is a paper.

27. A method according to claim 24 wherein transferring the developed image comprises first transferring the image to an intermediate transfer member and then transferring the image  
30 therefrom to the final substrate.

28. A method according to claim 24 wherein transferring comprises fixing the transferred image to the final substrate.